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Our love/hate relationship with meetings: Relating good and bad meeting behaviors to meeting outcomes, engagement, and exhaustion

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# Our love/hate relationship with meetings

## Relating good and bad meeting behaviors to meeting outcomes, engagement, and exhaustion

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### Abstract

**Purpose** – Employees at all organizational levels spend large portions of their work lives in meetings, many of which are not effective. Previous process-analytical research has identified counterproductive communication patterns to help explain why many meetings go wrong. This study aims to illustrate the ways in which counterproductive – and productive – meeting behaviors are related to individual work engagement and emotional exhaustion.

**Design/methodology/approach** – The authors built a new research-based survey tool for measuring counterproductive meeting behaviors. An online sample of working adults ( $N = 440$ ) was recruited to test the factor structure of this new survey and to examine the relationships between both good and bad meeting behaviors and employee attitudes beyond the meeting context.

**Findings** – Using structural equation modeling, this study found that counterproductive meeting behaviors were linked to decreased employee engagement and increased emotional exhaustion, whereas good meeting behaviors were linked to increased engagement and decreased emotional exhaustion. These relationships were mediated via individual meeting satisfaction and perceived meeting effectiveness.

**Research limitations/implications** – The study findings provide a nuanced view of meeting outcomes by showing that the behaviors that people observe in their meetings connect not only to meeting satisfaction and effectiveness but also to important workplace attitudes (i.e. employee engagement and emotional exhaustion). In other words, managers and meeting leaders need to be mindful of behavior in meetings, seek ways to mitigate poor behavior and seek opportunities to reward and encourage citizenship behavior.

**Originality/value** – This study shows how good and bad meeting behaviors relate to employee perceptions of meeting effectiveness and individual job attitudes. The authors develop a science-based,



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practitioner-friendly new survey tool for observing counterproductive meeting behavior and offer a juxtaposition of good and bad meeting behaviors in a single model.

**Keywords** Employee engagement, Meetings, Emotional exhaustion, Counterproductive meeting behaviors, Survey development

**Paper type** Research paper

Meetings are held for a number of different purposes and take up increasing amounts of work time (Allen *et al.*, 2014). Unfortunately, almost half of today's numerous and time-consuming workplace meetings are evaluated as ineffective by the participating employees (Schell, 2010). Tedious, ineffective meetings may not only waste temporal and financial resources in organizations but also leave a lasting imprint on individual attendees long after a meeting has ended. Meetings can play an important role for employees' job satisfaction and well-being at work (Luong and Rogelberg, 2005; Rogelberg *et al.*, 2006, 2010). In this paper, we draw from sensemaking theory (Weick *et al.*, 2005) to argue that what happens in a meeting is not just good or bad in itself, but can also set the tone for employees' workdays and shape their workplace experiences more generally.

The mismatch between the increasing amount of time employees spend in meetings, on the one hand, and the frequent experiences of bad meetings, on the other hand, calls for research aiming to understand how specific behaviors within meetings relate not only to meeting satisfaction and effectiveness but also to employee attitudes and well-being beyond the meeting context. Previous research has identified specific functional behavior patterns (e.g. problem-solving behaviors) as well as dysfunctional meeting behaviors (e.g. criticizing others or complaining) and linked them to meeting satisfaction and more distal performance outcomes (Kauffeld and Lehmann-Willenbrock, 2012; Lehmann-Willenbrock *et al.*, 2013). However, it remains to be seen how the link between functional/productive versus dysfunctional/counterproductive meeting behaviors and meeting satisfaction and effectiveness may further connect to employee attitudes and well-being beyond the meeting context.

The purpose of this study is to investigate how the behaviors of meeting attendees – both good and bad – relate to meeting outcomes and employee attitudes beyond the meeting context. Building upon the sensemaking theory, we propose that good and bad meeting behaviors can leave a lasting imprint on employees. In doing so, we connect the dots between previous team interaction process research and survey-based findings on meeting effectiveness to shed light on the relationships between positive versus counterproductive meeting behaviors and immediate meeting outcomes (i.e. perceived meeting satisfaction and meeting effectiveness) as well as employee attitudes beyond the meeting (i.e. individual work engagement and emotional exhaustion). To test these arguments, we develop a new survey measure for assessing counterproductive meeting behaviors, grounded in previous process-analytical findings from team science. Moreover, we examine the relationships between meeting citizenship and counterproductive meeting behavior, on the one hand, and meeting outcomes as well as employee attitudes, on the other hand, in a sample of 440 working adults who regularly attend workplace meetings. We discuss implications for meeting science and managerial implications for detecting counterproductive meeting behaviors, promoting positive meeting behaviors and managing meeting effectiveness.

*Meetings as sites for sensemaking in the workplace*

Sensemaking is the process of achieving an understanding, or making sense, of an experienced event. In the workplace, sensemaking occurs through communication (Weick *et al.*, 2005). Although sensemaking occurs in many different conversational contexts in the workplace, meetings have been discussed as the most common workplace activity that is aimed at sensemaking, either explicitly or implicitly (Scott *et al.*, 2015). Many meetings are scheduled in the first place because there is a need to manage ambiguity and make sense of recent events (Eisenberg, 2007; Jarzabkowski and Seidle, 2008). Because meetings are often called in an effort to share information, reduce ambiguity and promote collaboration, sensemaking has been discussed as a critical component of workplace meetings (for extensive arguments regarding meetings as sensemaking sites, see Scott *et al.*, 2015). Indeed, behavioral observations during workplace meetings suggest that sensemaking activities such as discussing problems, developing solutions and identifying necessary action steps are typical behaviors that employees show during their meetings (Kauffeld and Lehmann-Willenbrock, 2012; Lehmann-Willenbrock *et al.*, in press).

Sensemaking and related activities during meetings can help reduce ambiguity, but may also affect meeting attendees' attitudes beyond the meeting itself. For example, the experience of a well-structured and effective meeting, characterized by functional problem-solving behaviors and action orientation, will be substantially different from the experience of attending a poorly structured meeting, characterized by inefficient sensemaking, derailing group processes or the emergence of a negative group mood (Kauffeld and Lehmann-Willenbrock, 2012; Lehmann-Willenbrock *et al.*, 2011; Lehmann-Willenbrock and Kauffeld, 2010). As such, the way in which meetings can influence employees' work lives does not stop at the moments immediately after a meeting, when participants can be either satisfied or dissatisfied with their meeting. Indeed, what happens in meetings can have a profound impact on individual workplace attitudes far beyond the actual meeting context (Rogelberg *et al.*, 2010; Allen and Rogelberg, 2013). Previous research shows that meeting outcomes (i.e. meeting attendees' satisfaction as well as their perceptions of meeting effectiveness) relate to employee attitudes about their jobs and their emotional well-being more generally (Rogelberg *et al.*, 2010). To deepen our understanding of how good and bad meeting behaviors shape individual employees' workplace experiences, this study examines their relationships with meeting outcomes as well as two more proximate outcomes that go beyond the immediate meeting context, namely, individual workplace engagement, on the one hand, and emotional exhaustion as an indicator of individual well-being, on the other hand. To examine within-meeting experiences, we first draw a distinction between functional and dysfunctional or helpful versus harmful behaviors that happen during workplace meetings.

*Helpful and harmful meeting behaviors*

Previous team process research shows that functional meeting behaviors such as generating ideas or planning specific action steps to ensure that the ideas from the meeting will make it into everyday practice can promote meeting effectiveness (Kauffeld and Lehmann-Willenbrock, 2012; Nixon and Littlepage, 1992). Moreover, scholars have pointed to courtesy behaviors as a possible way to reap the intended benefits of meetings in organizations. In particular, Baran and colleagues developed a measure of

meeting citizenship behaviors, using a survey study of working adults from different organizations (Baran *et al.*, 2012). They describe meeting citizenship in terms of extra-role behaviors aimed at supporting meeting processes. Such extra-role behaviors include volunteering information to aid problem-solving, communicating ideas or coming prepared to the meeting.

When focusing on citizenship behaviors *within* the meeting (rather than before, as in preparing a meeting), citizenship behaviors correspond to functional meeting behaviors identified in previous research on team interaction processes during meetings, such as stating problems, contributing solutions or engaging in procedural behaviors to structure the meeting. Previous process-analytical findings show that such functional behaviors can significantly contribute to employees' satisfaction with their meetings and perceived meeting effectiveness (Kauffeld and Lehmann-Willenbrock, 2012; Lehmann-Willenbrock *et al.*, 2013). Moreover, in a study of public advisory meetings, McComas *et al.* (2007) highlight the importance of fair procedures for meeting satisfaction and suggest that researchers pay closer attention to those behavioral processes that convey relational fairness perceptions. We would expect that meeting citizenship behaviors can play an important role toward this end, which again would suggest benefits of meeting citizenship behavior for attendees' meeting satisfaction.

However, previous work also shows that many organizational meetings suffer from disproportionately frequent dysfunctional behaviors (Kauffeld and Lehmann-Willenbrock, 2012; Lehmann-Willenbrock and Kauffeld, 2010). These include complaining, backbiting or getting "off track" and losing the train of thought. For example, a study with 92 teams from different industries showed that the average team meeting contained 32 complaining statements and only two action planning statements per one-hour period (Kauffeld and Lehmann-Willenbrock, 2012). Counterproductive meeting behaviors, such as criticizing others or complaining, are problematic especially because they often occur in cycles or recurring patterns. For example, if a meeting participant starts complaining, this will likely receive support, which will in turn generate more complaining (Kauffeld and Meyers, 2009; Lehmann-Willenbrock *et al.*, 2011). In other words, counterproductive meeting behaviors have the potential to get a meeting "stuck" in negative loops, which derails meeting processes (Lehmann-Willenbrock and Kauffeld, 2010).

Taken together, previous findings from both survey and process-analytical research suggest that meeting citizenship behaviors, on the one hand, will positively impact meeting satisfaction and effectiveness because these behaviors move the meeting forward and help achieve meeting purposes (Baran *et al.*, 2012; Kauffeld and Lehmann-Willenbrock, 2012). Counterproductive meeting behaviors, on the other hand, should be negatively linked to meeting satisfaction and effectiveness, because these behaviors tend to derail the meeting and create hurdles for achieving meeting effectiveness (Kauffeld and Meyers, 2009; Lehmann-Willenbrock and Kauffeld, 2010). Hence, we hypothesize:

- H1. Meeting citizenship behaviors are positively linked to attendees' meeting satisfaction (a) and meeting effectiveness (b).
- H2. Counterproductive meeting behaviors are negatively linked to attendees' meeting satisfaction (a) and perceived meeting effectiveness (b).

*How good and bad meeting behaviors relate to employee engagement*

Drawing from the notion of meetings as sites for organizational sensemaking (Scott *et al.*, 2015), we expect that meeting citizenship behaviors versus counterproductive meeting behaviors can shape employees' workplace experiences more broadly. In particular, we focus on the relationship between these two types of meeting behaviors and employees' work engagement. Work engagement can be defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli *et al.*, 2002, p. 74). Engaged employees identify with their work, involve themselves and contribute ideas, enjoy a feeling of self-efficacy and work energetically without suffering from burnout (Leiter and Bakker, 2010). In the context of workplace meetings, engagement can be boosted when a meeting is conducted well by the meeting leader (Allen and Rogelberg, 2013). Although less is known about how behaviors within the meeting may promote engagement, we would expect meeting citizenship behavior to play a role here. Meeting citizenship behaviors can facilitate information access, structure situations or problems, create a common understanding of problems, clarify goals and help generate feasible solutions that can improve work processes and thereby also individual employees' everyday work lives (Baran *et al.*, 2012; Kauffeld and Lehmann-Willenbrock, 2012). When a meeting is characterized by such behaviors, meeting attendees will likely not only leave the meeting satisfied and gain an impression of overall meeting effectiveness but will also feel energized and dedicated to implement goals set in the meeting. In other words, such meetings may boost their work engagement.

On the other hand, bad or counterproductive meeting behaviors should have adverse effects on individual engagement. Previous research has found negative links between counterproductive verbal behaviors such as running off topic, criticizing others or complaining and meeting satisfaction and effectiveness (Kauffeld and Lehmann-Willenbrock, 2012). Patterns of such counterproductive behaviors (i.e. complaining cycles) have also been linked to a bad overall mood in meetings (Lehmann-Willenbrock *et al.*, 2011). These findings suggest that when a meeting takes a downturn and becomes driven by counterproductive behaviors, this will likely create a negative affective experience, or a hindering job demand, for the individual employees who attend them. In other words, counterproductive meeting behaviors may diminish individual work engagement. Taken together, we hypothesize:

- H3.* Meeting citizenship behaviors are positively linked to employee engagement (a), whereas counterproductive meeting behaviors are negatively linked to employee engagement (b).

*How good and bad meeting behaviors relate to emotional exhaustion*

Distinct relationships between good and bad meeting behaviors and positive outcomes such as engagement also suggest that the two types of meeting behaviors should show different relationships with negative outcomes, in particular with emotional exhaustion in the workplace. The concept of emotional exhaustion concerns "feelings of being emotionally overextended and exhausted by one's work" (Wright and Cropanzano, 1998, p. 186). In the organizational context, emotional exhaustion has been defined as a state of depleted emotional and motivational resources (Hobfoll and Freedy, 1993). Emotional exhaustion has been shown to impair employees' work attitudes and job performance, as well as their mental and physical health (Maslach, 2001).



Previous research has identified high workload, conflict and requirements to express positive emotions despite potential negative feelings as factors that can promote employee emotional exhaustion, among others (Grandey, 2003). A recent review summarizes unfavorable psychosocial working conditions – high workload, high quantitative, mental or emotional demands and low social support – as consistent predictors of emotional exhaustion across studies (Seidler *et al.*, 2014). To date, however, no study has examined how meetings may contribute to or potentially diminish emotional exhaustion, despite the fact that meetings are a steady component of many employees' work lives, constitute a salient context for interpersonal interaction and for shaping workplace attitudes and are often emotional venues (Lehmann-Willenbrock and Allen, 2014; Rogelberg *et al.*, 2010).

Counterproductive meeting behaviors versus meeting citizenship behaviors should have distinctly different linkages with employees' emotional exhaustion. We argue that meetings can play a role for emotional exhaustion for three reasons. First, large and increasing amounts of valuable work time are spent in meetings and employees often complain about having to attend meetings that lack action results (Kayes *et al.*, 2005; Lehmann-Willenbrock *et al.*, 2016a). Rogelberg *et al.* (2006) even discuss the existence of a social norm for complaining about meetings. Again, we would argue that it depends on what happened in a specific meeting: Negative feelings, and potential emotional exhaustion, as a result of a meeting will be more likely when a meeting was characterized by counterproductive rather than meeting citizenship behaviors. Second, previous research suggests that meetings are affect-laden events and trigger emotional responses by employees (Allen and Rogelberg, 2013; Lei and Lehmann-Willenbrock, 2015; Rogelberg *et al.*, 2010). Positive meeting behaviors shape positive affective experiences in meetings, whereas counterproductive behaviors shape negative collective affect in meetings (Lehmann-Willenbrock *et al.*, 2011). Third, counterproductive meeting behaviors, such as complaining and criticizing, may be linked to increased emotional exhaustion in light of previous findings that tensions and verbal maltreatment can promote emotional exhaustion (Grandey *et al.*, 2007). Meeting citizenship behaviors, on the other hand, can function as a positive resource (Baran *et al.*, 2012) and thus should be negatively linked to experiences of emotional exhaustion. Taken together, we hypothesize:

- H4. Meeting citizenship behaviors are linked to lower levels of emotional exhaustion (a), whereas counterproductive meeting behaviors are linked to higher levels of emotional exhaustion (b).

#### *Mediating relationships*

From our previous line of reasoning, it logically follows to propose a mediated model for explaining the relationships between good and bad meeting behaviors, immediate or proximal meeting outcomes (meeting satisfaction and perceived meeting effectiveness) and more distal meeting outcomes (individual engagement and emotional exhaustion). Specifically, focusing on employee engagement as an individual outcome first, we expect that good meeting behaviors will leave meeting attendees feeling that their meeting time was well spent, which creates psychological conditions that are conducive to work engagement (Kahn, 1990; Allen and Rogelberg, 2013). In other words, the positive link between meeting citizenship behaviors and individual engagement will be mediated by the positive relationship between good meeting behaviors and meeting satisfaction and effectiveness.

On the contrary, counterproductive meeting behaviors can leave meeting attendants feeling unsatisfied or even drained, and as such may create psychological conditions that are detrimental for individual work engagement. In other words, we propose that the negative link between counterproductive meeting behaviors and work engagement will be mediated via their negative relationship with meeting satisfaction and meeting effectiveness. Taken together, we hypothesize:

- H5.* The positive relationship between meeting citizenship behaviors and employee engagement is (positively) mediated by (a) meeting satisfaction and (b) meeting effectiveness.
- H6.* The negative relationship between counterproductive meeting behaviors and employee engagement is (negatively) mediated by (a) meeting satisfaction and (b) meeting effectiveness.

Similarly, our previous argumentation when considered in summary suggests that the proposed negative link between meeting citizenship behaviors and individual participants' emotional exhaustion, as well as the proposed positive link between counterproductive meeting behaviors and individual emotional exhaustion, will be mediated via the differential relationships between these different types of meeting behaviors and meeting satisfaction and effectiveness. From our above line of reasoning it follows that meeting citizenship behaviors can leave participants feeling satisfied and positive about meeting effectiveness, both of which can be regarded as conditions that can alleviate experiences of emotional exhaustion. And finally, we propose that counterproductive meeting behaviors can increase individual experiences of emotional exhaustion at work via their negative relationship with meeting satisfaction and effectiveness. In other words, counterproductive meeting behaviors may be linked to higher emotional exhaustion because they reflect psychosocial working conditions, in terms of low meeting satisfaction and low meeting effectiveness, which are potentially emotionally exhausting (Seidler *et al.*, 2014). Our two final hypotheses thus state:

- H7.* The negative link between meeting citizenship behaviors and emotional exhaustion is mediated (positively) by meeting satisfaction (a) and meeting effectiveness (b).
- H8.* The positive link between counterproductive meeting behaviors and emotional exhaustion is mediated (negatively) by meeting satisfaction (a) and meeting effectiveness (b).

## Method

### *Sample and procedure*

The sample included working adults who regularly attend work meetings as a part of their job. Participants completed the survey online and were recruited using Amazon's Mechanical Turk (MTurk). MTurk is maintained by [Amazon.com](https://www.amazon.com) and panelists are recruited from the vast membership of [Amazon.com](https://www.amazon.com) users who have an interest in receiving monetary compensation for work opportunities through the MTurk system. Previous studies used MTurk for collecting data and found it to be a good resource for clean and useful data (Buhrmester *et al.*, 2011; Shapiro *et al.*, 2013). For our study, a small financial incentive was provided for participating in the online survey (i.e. \$0.50). The



final usable sample included 440 adults, 49.7 per cent were female; the mean age of the participants was 37.2; and the majority of the sample indicated they work in a group or team (82.4 per cent).

### Measures

*Counterproductive meeting behaviors* were assessed using a ten-item measure which we developed for the present study. Items were developed based on previous process-analytical findings obtained with the act4teams coding scheme for meeting interaction. The act4teams coding scheme is conceptually grounded in previous group interaction coding instruments and was developed and validated using a sample of 95 real organizational meetings from a range of organizations (Kauffeld and Lehmann-Willenbrock, 2012; Meinecke and Lehmann-Willenbrock, 2015). Based on this coding scheme, we distinguished between negative procedural behaviors (running off topic or losing the train of thought), negative socioemotional behaviors (e.g. criticizing others) and counteractive behaviors (e.g. complaining). We rephrased the wording such that observation codes from the act4teams scheme were stated as behavior observations that can be completed by regular meeting attendees. For example, the original act4teams observation code “self-promotion” was described in the item “Meeting attendees point out their work experience to show that they are superior” (Figure A1).

After generating the list of items, an expert panel of researchers reviewed and commented on the items (Baran *et al.*, 2012). The final set of ten items were modified and selected for inclusion on the survey. Items were rated on a five-point Likert scale ranging from 1 being “strongly disagree” to 5 being “strongly agree”. Instructions asked the participants to indicate their agreement with the following statements concerning their workplace meetings in general. Before testing hypotheses with this measure, we performed an exploratory factor analysis to investigate the factor structure. Using direct oblimin rotation, we obtained a one-factor solution (eigenvalue = 5.56). Figure A1 shows all items and their factor loadings as well as the scree plot, which also indicated a one-factor solution.

*Meeting citizenship behaviors* were assessed using an eight-item scale (Baran *et al.*, 2012). Participants were asked to indicate their agreement with the statements concerning their workplace meetings. Sample items include “I try to make our meeting more productive” and “I come prepared to meetings”. Items were rated on a six-point Likert scale from 1 being “completely disagree” to 6 being “completely agree”.

*Meeting satisfaction* was measured using a six-item scale (Rogelberg *et al.*, 2010). Participants were asked to think about their work meetings and indicate how the words presented described their meetings. Sample items include “satisfying” and “enjoyable”. Items were rated on a five-point Likert scale ranging from “completely disagree” to “completely agree”.

*Meeting effectiveness* was assessed using a six-item scale (Rogelberg *et al.*, 2006). Participants were asked to think of their last work meeting and rate the effectiveness of the meeting relative to the statements provided. Sample items included “achieving your own work goals” or “providing you with an opportunity to acquire useful information”. Items were rated on a five-point scale ranging from 1 (“extremely ineffective”) to 5 (“extremely effective”).

*Employee engagement* was assessed using an abbreviated nine-item version of the Utrecht Work Engagement Scale designed to assess overall employee engagement

(Schaufeli and Bakker, 2003). This nine-item measure assessed the three facets of employee engagement: vigor, dedication and absorption. The instructions read "Think about the work that you do. Please indicate how frequently the following are true of you at work". Sample items include "At my work, I feel bursting with energy", "I find the work that I do full of meaning and purpose" and "Time flies when I am working". Ratings were made on a five-point scale, ranging from 1 being "never" to 5 being "always".

*Emotional exhaustion* was measured using the eight-item emotional exhaustion subscale of the Maslach Burnout Inventory (Maslach and Jackson, 1981). Participants were asked, "How often do you:", followed by a series of statements. Sample items include "I feel emotionally drained from work" and "I feel burned out from my work". Items were rated on a seven-point Likert scale ranging from 1 being "never" to 7 being "every day".

Demographic variables were assessed as potential control variables as well as information concerning sample characteristics. These included measures of age, gender, education, tenure with their current employment organization and job level. Only job level showed a significant correlation with any of the main study variables. As such, we tested the models with and without job level as a control variable. However, because the pattern of results was the same and we did not have an a priori theory for including job level as a control variable, we report the models without controlling for job level, and this process is consistent with current thinking and treatment of control variables using complex models (Becker, 2005).

## Results

### *Discriminant validity*

Before testing the hypothesized model, we performed a confirmatory factor analysis (CFA) to verify the distinctiveness of the six focal measures (Table I). We compared the model fit for each of the five nested models, ranging from a single-factor model to a six-factor model (Lance and Vandenberg, 2002). Specifically, the one-factor model combined all focal measures into a single factor. Each subsequent model separated each measure out (i.e. counterproductive meeting behaviors, meeting citizenship behaviors, meeting satisfaction, meeting effectiveness, employee engagement and emotional exhaustion). When inspecting the fit indices as shown in Table I, the six-factor model

Model	CFI	TLI	$\chi^2$	df	Difference	RMSEA
One-factor	0.83	0.82	19,194.82*	945		0.21
Two-factor	0.87	0.86	13,861.16*	944	5,333.66*	0.18
Three-factor	0.90	0.89	11,154.61*	942	2,706.55*	0.16
Four-factor	0.91	0.90	9,198.81*	939	1,955.80*	0.14
Five-factor	0.94	0.93	6,383.27*	935	2,815.54*	0.11
Six-factor	0.97	0.97	2,488.52*	930	3,894.75*	0.06

**Notes:**  $N = 440$ ; The one-factor model includes all focal measures combined. Each subsequent model separates each measure out, step-by-step, until the six-factor model which separates each measure into distinct factors; CFI = comparative fit index; TLI = Tucker–Lewis index; Difference = difference in chi-square from the next model; RMSEA = root-mean-square error of approximation; \* $p < 0.05$

**Table I.**  
Confirmatory factor  
analyses for all focal  
measures

showed the best overall fit. Although each more differentiated model showed a significantly better chi-square statistic (James *et al.*, 1982), the six-factor model showed a better root mean square error of approximation (RMSEA), comparative fit index (CFI) and Tucker–Lewis index (TLI). Additionally, all values were above their recommended cutoff of 0.90. Notably, all items in the six-factor model loaded reliably on their predicted factors, with the lowest loading of 0.42.

Additionally, average variance extracted for each measure was consistently greater than 0.60 and alpha reliability estimates were greater than 0.80 for all measures. Both suggest adequate convergent validity and reliability to proceed with the hypothesis test. The means, standard deviations, intercorrelations and internal consistency reliability estimates are shown in Table II. All correlations were consistent with the proposed hypotheses and significant in the proposed directions ( $p < 0.05$ ).

#### *Tests of the proposed model*

To fully test the proposed hypotheses, we tested the proposed model (Figure 1) with structural equation modeling (SEM) using LISREL 8.80. In addition to the full-mediation model, we tested two alternative models as comparison points for assessing the efficacy of the proposed model: a direct effects model and a partial-mediation model (Table III). The full-mediation model provided a good fit to the data,  $\chi^2(936) = 2,749.04$ ,  $p < 0.05$ ; RMSEA = 0.06, TLI = 0.97, CFI = 0.97. However, the partial-mediation model showed a significantly better fit based on the chi-square difference test ( $\chi^2(4) \text{ difference} = 49.56$ ,  $p < 0.05$ ). This finding suggests remaining direct effects of both counterproductive meeting behaviors and meeting citizenship behaviors on both emotional exhaustion and employee engagement, in addition to the mediation effects (Table III).

The path coefficients for the relationships between meeting citizenship behaviors and meeting satisfaction ( $\beta = 0.35$ ,  $p < 0.05$ ) and effectiveness ( $\beta = 0.32$ ,  $p < 0.05$ ) were significant and with the expected sign, which supports *H1a* and *H1b*. Moreover, consistent with *H2a* and *H2b*, the path coefficients for the relationships between counterproductive meeting behaviors and meeting satisfaction ( $\beta = -0.42$ ,  $p < 0.05$ ) and effectiveness ( $\beta = -0.37$ ,  $p < 0.05$ ) were significant and with the expected sign.

The path coefficients for the direct relationships between meeting citizenship behaviors and engagement ( $\beta = 0.19$ ,  $p < 0.05$ ) as well as counterproductive meeting behaviors and engagement ( $\beta = -0.10$ ,  $p < 0.05$ ) were significant and with the expected sign, which supports *H3a* and *H3b*. Moreover, the path coefficients for the direct relationships between meeting citizenship behaviors and emotional exhaustion ( $\beta = -0.16$ ,  $p < 0.05$ ) as well as counterproductive meeting behaviors and emotional exhaustion ( $\beta = 0.19$ ,  $p < 0.05$ ) were significant and with the expected sign, which supports *H4a* and *H4b*.

To test for mediation effects, we followed two processes given current conventions concerning testing mediation hypotheses using SEM (Mackinnon *et al.*, 2012). First, we followed the steps described by Kenny *et al.* (1998) and all paths were tested simultaneously using SEM (Figure 1). Second, we tested the indirect effects of the main predictors (i.e. counterproductive meeting behaviors and meeting citizenship behaviors) on the outcomes (i.e. employee engagement and emotional exhaustion) through the mediators (i.e. meeting satisfaction and effectiveness) using bootstrapping methods developed by Preacher and Hayes (2008).

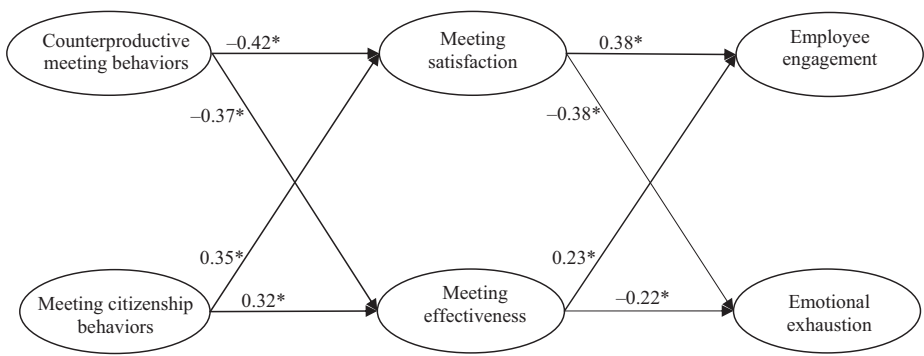
Variables	M	SD	1	2	3	4	5	6	7	8	9
1. Counterproductive meeting behaviors	2.70	0.78	(0.91)								
2. Meeting citizenship behaviors	4.37	0.92	-0.11*	(0.92)							
3. Meeting satisfaction	2.86	0.89	-0.44*	0.34*	(0.87)						
4. Meeting effectiveness	3.54	0.74	-0.37*	0.30*	0.61*	(0.92)					
5. Employee engagement	3.06	0.77	-0.11*	0.34*	0.43*	0.39*	(0.92)				
6. Emotional exhaustion	3.67	1.57	0.37*	-0.30*	-0.46*	-0.39*	-0.56*	(0.95)			
7. Age	37.22	12.14	0.02	0.04	0.02	0.02	0.01	-0.04	-		
8. Gender	1.50	0.50	-0.08	-0.08	-0.06	-0.03	-0.02	0.08	0.07	-	
9. Job level	3.48	0.91	-0.01	-0.25*	-0.20*	-0.13*	-0.28*	0.14*	-0.06	0.09*	-

**Notes:** *N* = 440; Diagonal values are the internal consistency reliability estimates for each scale; \* *p* < 0.05 (2-tailed)

Love/hate  
relationship  
with meetings

**Table II.**  
Means, standard  
deviations and  
intercorrelations of  
all measures

**Figure 1.**  
Path model with  
standardized  
coefficients



**Note:** \* $p < 0.05$

First, [Figure 1](#) and [Table III](#) show the significant path coefficients following the steps described by [Kenney et al. \(1998\)](#). Concerning employee engagement as a distal meeting outcome, we found that meeting citizenship behaviors were related to both meeting satisfaction ( $\beta = 0.35, p < 0.05$ ) and effectiveness ( $\beta = 0.32, p < 0.05$ ) and they were both related to employee engagement ( $\beta = 0.38$  and  $0.23$ , respectively,  $p < 0.05$ ). This finding lends support to *H5a* and *H5b*. Moreover, counterproductive meeting behaviors were related to both meeting satisfaction ( $\beta = -0.42, p < 0.05$ ) and effectiveness ( $\beta = -0.37, p < 0.05$ ) and they were both related to employee engagement ( $\beta = 0.38$  and  $0.23$ , respectively,  $p < 0.05$ ), which supports *H6a* and *H6b*. Concerning emotional exhaustion as a distal meeting outcome, we found that meeting citizenship behaviors were related to both meeting satisfaction ( $\beta = 0.35, p < 0.05$ ) and effectiveness ( $\beta = 0.32, p < 0.05$ ) and they were both related to emotional exhaustion ( $\beta = -0.38$  and  $-0.22$ , respectively,  $p < 0.05$ ), thus lending support to *H7a* and *H7b*. Moreover, counterproductive meeting behaviors were related to both meeting satisfaction ( $\beta = -0.42, p < 0.05$ ) and effectiveness ( $\beta = -0.37, p < 0.05$ ) and they were both related to emotional exhaustion ( $\beta = -0.38$  and  $-0.22$ , respectively,  $p < 0.05$ ), which supports *H8a* and *H8b*.

Second, using 5,000 bootstrap samples, we computed indirect effects estimates along with 95 per cent confidence intervals around the estimates ([Table IV](#)). All eight indirect effects were significant ( $p < 0.05$ ) and in the hypothesized directions, thus lending further support to *H5* through *H8*.

### Discussion

This study considered both constructive and counterproductive meeting behaviors and how they relate to both proximal meeting outcomes (i.e. immediate evaluations of work meetings) and more distal meeting outcomes (i.e. individual engagement and emotional exhaustion). Our findings add to research and theory concerning workplace meetings by expanding the nomological network surrounding meeting effectiveness to include both processes within the meeting and attitudes beyond the meeting context. Because meetings are so common in daily organizational life, organizations must try to make meetings as satisfying and effective as possible if they want employees to remain engaged in their jobs and emotionally healthy at work.

Measures	Direct effects model	Full mediation model	Partial mediation model
<i>Fit indices</i>			
$\chi^2$	2,887.93*	2,749.04*	2,699.48*
df	936	936	932
CFI	0.96	0.97	0.97
TLI	0.96	0.97	0.97
RMSEA	0.06	0.06	0.06
<i>Direct effects on engagement</i>			
Counterproductive meeting behaviors	-0.10*	—	-0.12*
Meeting citizenship behaviors	0.19*	—	0.19*
Meeting satisfaction	—	0.38*	0.37*
Meeting effectiveness	—	0.23*	0.21*
<i>Direct effects on emotional exhaustion</i>			
Counterproductive meeting behaviors	0.19*	—	0.19*
Meeting citizenship behaviors	-0.16*	—	-0.16*
Meeting satisfaction	—	-0.38*	-0.26*
Meeting effectiveness	—	-0.22*	-0.15*
<i>Direct effects on meeting satisfaction</i>			
Counterproductive meeting behaviors	-0.43*	-0.42*	-0.42*
Meeting citizenship behaviors	0.35*	0.35*	0.33*
<i>Direct effects on meeting effectiveness</i>			
Counterproductive meeting behaviors	-0.37*	-0.37*	-0.37*
Meeting citizenship behaviors	0.32*	0.32*	0.31*
<b>Note:</b> $N = 440$ ; * $p < 0.05$			

**Table III.**  
Fit indices and  
standardized path  
coefficients for  
theoretical models

### Findings

Our proposed mediation model, where meeting citizenship and counterproductive meeting behaviors related to both employee engagement and emotional exhaustion through their linkages with meeting satisfaction and effectiveness, received consistent support from the data (Figure 1). Further, we found that the distinct relationships between counterproductive versus meeting citizenship behaviors, on the one hand, and distal outcome variables (engagement and emotional exhaustion), on the other hand, persisted even while accounting for relationships between these two types of meeting behaviors and proximal meeting outcomes (see the partial mediation model presented in Table III). These findings are consistent with recent literature investigating the linkages between meeting processes and workplace attitudes and performance outcomes more generally (Allen and Rogelberg, 2013; Kauffeld and Lehmann-Willenbrock, 2012). In



**Table IV.**  
Mediation of the  
effects of meeting  
attendee behavior on  
employee  
engagement and  
burnout through  
meeting outcomes

Indirect effects	Product of coefficients			Percentile 95% CI		Bootstrapping			
	$\beta$	SE	Z	95% CI		BC 95% CI		BCa 95% CI	
				Lower	Upper	Lower	Upper	Lower	Upper
1. CMBA → MS → EE	-0.21*	0.03	-7.29	-0.28	-0.14	-0.29	-0.14	-0.28	-0.14
2. CMBA → ME → EE	-0.15*	0.02	-6.03	-0.19	-0.10	-0.20	-0.11	-0.20	-0.11
3. CMBA → MS → EX	0.32*	0.05	6.34	0.21	0.46	0.22	0.47	0.21	0.46
4. CMBA → ME → EX	0.22*	0.04	5.20	0.13	0.31	0.14	0.32	0.14	0.31
5. MCB → MS → EE	0.10*	0.02	5.57	0.06	0.15	0.06	0.15	0.06	0.15
6. MCB → ME → EE	0.08*	0.01	4.87	0.04	0.12	0.04	0.13	0.04	0.12
7. MCB → MS → EX	-0.23*	0.04	-5.84	-0.33	-0.14	-0.34	-0.15	-0.33	-0.15
8. MCB → ME → EX	-0.17*	0.03	-4.97	-0.26	-0.09	-0.26	-0.10	-0.25	-0.10

**Notes:** *N* = 440; \**p* < 0.05; CMBA = counterproductive meeting behaviors; MS = meeting satisfaction; EE = employee engagement; ME = meeting effectiveness; EX = emotional exhaustion; MCB = meeting citizenship behavior; BC = bias corrected; BCa = bias corrected and accelerated; 5,000 bootstrap samples

sum, our results illustrate that good and bad behaviors in meetings by attendees matter to both proximal and distal outcomes for employees in organizations. As such, our findings showcase the important role of meeting experiences in employees’ work lives.

*Implications for meeting science*

Our study has several theoretical implications. First, we developed a new survey measure of counterproductive meeting behaviors that can inform meeting science aimed at better understanding this critical issue in organizational meetings (Lehmann-Willenbrock and Kauffeld, 2010). Previous research on within-meeting processes has used behavioral observations and relatively complex, time-consuming and, therefore, labor-intense process-analytical methods (Kauffeld and Meyers, 2009; Kauffeld and Lehmann-Willenbrock, 2012; Lehmann-Willenbrock *et al.*, 2011). However, these previous studies have also paved the way for our new measure of counterproductive meeting behavior, which is grounded in previous process-analytical meeting science. Results of reliability analysis showed that this new survey has high internal consistency. Furthermore, CFA showed good internal consistency of this new survey. As such, our survey approach can provide a valuable tool for future scientific and practical attempts to understand good and bad meeting behaviors and their effects on individual employees beyond the meeting context, for example when managers or meeting leaders are trying to quickly grasp what did or did not go well in a meeting to take necessary steps for improvement.

Second, our empirically supported model offers a juxtaposition of good and bad meeting behaviors in a single model. As such, this study extends the majority of previous meetings research that has focused exclusively on helpful meeting behaviors (Baran *et al.*, 2012; Rogelberg *et al.*, 2010; Allen and Rogelberg, 2013), as well as the smaller body of previous work that has focused only on harmful meeting behaviors (Lehmann-Willenbrock and Kauffeld, 2010; Schulte *et al.*, 2013). The reality of most organizational meetings is that they will contain both good and bad meeting behaviors in the same meeting. The question is whether the good or the bad outweigh one another, in terms of the ways in which they can affect individual job attitudes and experiences. In

fact, previous process-analytic findings suggest that bad meeting behaviors such as complaining, running off topic or criticizing others outweigh good meeting behaviors considerably (Kauffeld and Lehmann-Willenbrock, 2012). As such, it is of particular importance to detect and understand counterproductive meeting behaviors. The new survey measure of counterproductive meeting behaviors developed in this study is readily applicable in organizational practice.

Third, our findings provide a more nuanced view of meeting outcomes. Our finding that meeting behaviors were meaningfully linked to both proximal and more distal meeting outcomes for the individual aligns with previous process-analytical findings concerning linkages between meeting behavioral processes, on the one hand, and meeting satisfaction and effectiveness as well as longer-term productivity and organizational functioning, on the other hand (Kauffeld and Lehmann-Willenbrock, 2012). However, our present findings extend these previous insights in that we focused on meeting outcomes for the individual participant, rather than aggregating behaviors and meeting outcomes to the team level. Furthermore, in terms of providing a more nuanced perspective of meeting outcomes, we considered both desired (i.e. engagement) and undesired (i.e. emotional exhaustion) outcomes for individual meeting attendees, and we identified the mediating mechanisms that help explain why the different types of meeting behavior relate to these two outcomes. Identifying the mediating function of proximal meeting outcomes (i.e. meeting satisfaction and meeting effectiveness) in the link between within-meeting behaviors and the more distal outcome variables of individual work engagement and emotional exhaustion is a move beyond previous findings on the meeting behaviors–meeting outcomes link (Kauffeld and Lehmann-Willenbrock, 2012), and an important step forward for meeting science. In addition, our finding that good versus bad meeting behaviors are differentially related to employee engagement and emotional exhaustion underscores the fact that meetings are more than just a “nuisance” that we have to live with at work; rather, they constitute an important social context for managing employee attitudes and preventing emotional exhaustion.

#### *Limitations and future directions*

As with any empirical investigation, this study has several limitations. First, our online survey used a cross-sectional study design and relied on self-report measures concerning meeting behaviors and outcomes. As such, common-method bias could be a potential issue. However, we followed recommendations by Conway and Lance (2010) in terms of reporting our results as well as methodological fixes suggested by Podsakoff *et al.* (2003). Methodologically, we rearranged the order of the measures on the survey, thus better controlling for item-context-induced mood states, priming effects and other biases related to question context or item location on the survey (Podsakoff *et al.*, 2003). In terms of reporting, we provided a CFA that confirmed a single factor was not the best fitting model for the measurement model. If common-method bias were indeed present, a single-factor model would fit as good as or better than the differentiated model (Conway and Lance, 2010). Moreover, our sample was USA-American, which limits the generalizability of our findings across different cultural settings. Meetings are particularly frequent in the US context (Newlund, 2012), which underscores the importance of our present findings. Nevertheless, future research should explore whether the linkages between good versus bad meeting behaviors and individual engagement and exhaustion hold true in different cultural contexts as well.

Second, our use of a cross-sectional research design precludes any causal inferences. Our findings regarding good and bad meeting behaviors and their relationships with meeting effectiveness as well as employee engagement and exhaustion pave the way for future research aimed at establishing the directionality of these effects. Future research could manipulate good and bad meeting behaviors in a laboratory setting or quasi-experimental field design, include longitudinal measures of proximal and distal meeting outcomes or study the effects of training interventions aimed at improving meeting behaviors in the field.

Third, we deliberately took a different approach in wording the items for our newly developed measure of counterproductive meeting behaviors compared to the wording in the available measure of meeting citizenship behaviors (Baran *et al.*, 2012). Whereas the meeting citizenship behavior items ask participants to report on their own behaviors, our counterproductive meeting behavior items were worded such that participants reported about the occurrence of these behaviors during their last meeting in general, regardless of the specific actor(s). There may have been a self-serving bias concerning the meeting citizenship measure, whereas we would hope that our counterproductive meeting behavior measure may have yielded more objective results in comparison. We chose this approach to avoid social desirability responses, as participants may not be willing to admit – or may not reflect in hindsight – that they contributed counterproductive behaviors themselves. However, future research could explore whether a more direct item wording is feasible, to draw more direct comparisons between meeting citizenship behaviors and counterproductive meeting behaviors (which was not a core intent of the present investigation).

Fourth, this study was aimed at identifying the relationships between good versus bad meeting behaviors and meeting effectiveness as well as employee attitudes and experiences beyond the meeting context. However, we made no efforts to improve participants' meeting practices. Future research can strive to develop interventions, based on identifying counterproductive meeting practices with our new measure, that help stop draining meeting experiences for the individuals participating in them and help organizations move forward.

#### *Implications for organizational practice*

Because this is the first study to show the relationships between both good and bad meeting behaviors on meeting outcomes and individual job attitudes, there are several practical implications worth mentioning. These implications occur at the individual employee level (i.e. the meeting attendee), at the manager or meeting leader level and in terms of the organization as a whole. First, as an individual employee or meeting attendee, our findings suggest that one's behaviors in a meeting, good and bad, appear to influence others in a meaningful way. The implication here is that meeting attendees should self-correct their own behavior and choose to engage in more meeting citizenship behavior generally.

Second, in terms of the manager or meeting leader, meeting ground rules can be set that allow for the reward of good behavior and the sanctioning of bad behavior. That is, meeting leaders should identify problematic behaviors early and often, thereby discouraging such behavior. Conversely, they should also identify good behavior, reward it and encourage it moving forward. Doing so will likely provide beneficial outcomes for individual meeting attendees and the meeting group in general. Specific trainings for meeting leaders could be tailored toward these issues.

Finally, in terms of the organization, organizational leaders should consider an organization-wide initiative to combat bad meeting behavior and promote good meeting behavior. This could include incorporating meeting behavior into performance appraisal systems or as a component of the annual engagement survey or both. By institutionalizing positive meeting behaviors and promoting them, organizational effectiveness may improve, one meeting at a time.

## References

- Allen, J.A., Beck, T., Scott, C.W. and Rogelberg, S.G. (2014), "Understanding workplace meetings: a qualitative taxonomy of meeting purposes", *Management Research Review*, Vol. 37 No. 9, pp. 791-814.
- Allen, J.A. and Rogelberg, S.G. (2013), "Manager-led group meetings: a context for promoting employee engagement", *Group and Organization Management*, Vol. 38 No. 5, pp. 534-569.
- Baran, B.E., Shanock, L.R., Rogelberg, S.G. and Scott, C.W. (2012), "Leading group meetings: supervisors' actions, employee behaviors, and upward perceptions", *Small Group Research*, Vol. 43 No. 3, pp. 330-355.
- Becker, T.E. (2005), "Potential problems in the statistical control of variables in organizational research: a qualitative analysis with recommendations", *Organizational Research Methods*, Vol. 8 No. 3, pp. 274-289.
- Buhrmester, M., Kwang, T. and Gosling, S.D. (2011), "Amazon's mechanical Turk: a new source of inexpensive, yet high-quality, data?", *Perspectives on Psychological Science*, Vol. 6 No. 1, pp. 3-5.
- Conway, J.M. and Lance, C.E. (2010), "What reviewers should expect from authors regarding common method bias in organizational research", *Journal of Business and Psychology*, Vol. 25 No. 3, pp. 325-334.
- Eisenberg, E.M. (2007), *Strategic Ambiguities: Essays on Communication, Organization, and Identity*, Sage, Thousand Oaks, CA.
- Grandey, A.A. (2003), "When 'the show must go on': surface acting and deep acting as determinants of emotional exhaustion and peer-rated service delivery", *Academy of Management Journal*, Vol. 46 No. 1, pp. 86-96.
- Grandey, A.A., Kern, J.H. and Frone, M.R. (2007), "Verbal abuse from outsiders versus insiders: comparing frequency, impact on emotional exhaustion, and the role of emotional labor", *Journal of Occupational Health Psychology*, Vol. 12 No. 1, pp. 63-79.
- Hobfoll, S.E. and Freedy, J. (1993), "Conservation of resources: a general stress theory applied to burnout", in Schaufeli, W.B., Maslach, C. and Marek, T. (Eds), *Professional Burnout: Recent Developments in Theory and Research*, Taylor and Francis, Washington, DC, pp. 115-129.
- James, L.R., Mulaik, S.A. and Brett, J.M. (1982), *Causal Analysis: Assumptions, Models, and Data*, Sage, Beverly Hills, CA.
- Jarzabkowski, P. and Seidle, D. (2008), "The role of meetings in the social practice of strategy", *Organization Studies*, Vol. 29 No. 11, pp. 1391-1426.
- Kahn, W.A. (1990), "Psychological conditions of personal engagement and disengagement at work", *Academy of Management Journal*, Vol. 33 No. 4, pp. 692-724.
- Kauffeld, S. and Lehmann-Willenbrock, N. (2012), "Meetings matter: effects of team meetings on team and organizational success", *Small Group Research*, Vol. 43 No. 2, pp. 130-158.
- Kauffeld, S. and Meyers, R.A. (2009), "Complaint and solution-oriented circles: interaction patterns in work group discussions", *European Journal of Work and Organizational Psychology*, Vol. 18 No. 3, pp. 267-294.

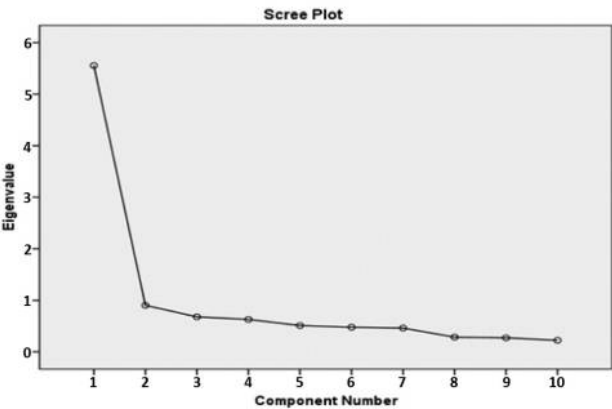
- Kayes, A.B., Kayes, C. and Kolb, D.A. (2005), "Experiential learning in teams", *Simulation Gaming*, Vol. 36 No. 3, pp. 330-354.
- Kenny, D.A., Kashy, D.A. and Bolger, N. (1998), "Data analysis in social psychology", in Gilbert, D.T., Fiske, S.T. and Lindzey, G. (Eds), *The Handbook of Social Psychology*, 4th ed., McGraw-Hill, New York, NY, Vol. 1, pp. 233-265.
- Lance, C.E. and Vandenberg, R.J. (2002), "Confirmatory factor analysis", in Drasgow, F. and Schmitt, N. (Eds), *Measuring and Analyzing Behavior in Organizations: Advances in Measurement and Data Analysis*, Jossey-Bass, San Francisco, CA, pp. 221-254.
- Lehmann-Willenbrock, N. and Allen, J.A. (2014), "How fun are your meetings? Investigating the relationship between humor patterns in team interactions and team performance", *Journal of Applied Psychology*, Vol. 99 No. 6, pp. 1278-1287.
- Lehmann-Willenbrock, N., Allen, J.A. and Kauffeld, S. (2013), "A sequential analysis of procedural communication in organizational meetings: how teams facilitate their meetings", *Journal of Applied Communication Research*, Vol. 41 No. 4, pp. 365-388.
- Lehmann-Willenbrock, N., Beck, S.J. and Kauffeld, S. (2016a), "Emergent team roles in organizational meetings: identifying communication patterns via cluster analysis", *Communication Studies*, Vol. 67 No. 1, pp. 37-57.
- Lehmann-Willenbrock, N., Chiu, M.M., Lei, Z. and Kauffeld, S. (in press), "Positivity as a dynamic team phenomenon: a statistical discourse analysis", *Group & Organization Management*.
- Lehmann-Willenbrock, N. and Kauffeld, S. (2010), "The downside of communication: complaining cycles in group discussions", in Schuman, S. (Ed.), *The Handbook for Working with Difficult Groups: How They Are Difficult, Why They Are Difficult, What You Can Do*, Jossey-Bass/Wiley, San Francisco, CA, pp. 33-54.
- Lehmann-Willenbrock, N., Meyers, R.A., Kauffeld, S., Neininger, A. and Henschel, A. (2011), "Verbal interaction sequences and group mood: exploring the role of planning communication", *Small Group Research*, Vol. 42 No. 6, pp. 639-668.
- Lei, Z. and Lehmann-Willenbrock, N. (2015), "Affect in meetings: an interpersonal construct in dynamic interaction processes", in Allen, J.A., Lehmann-Willenbrock, N. and Rogelberg, S.G. (Eds), *The Cambridge Handbook of Meeting Science*, Cambridge University Press, New York, NY, pp. 456-482.
- Leiter, M.P. and Bakker, A.B. (2010), "Work engagement: introduction", in Bakker A.B. and Leiter, M.P. (Eds), *Work Engagement: A Handbook of Essential Theory and Research*, Psychology Press, New York, pp. 1-9.
- Luong, A. and Rogelberg, S.G. (2005), "Meetings and more meetings: the relationship between meeting load and the daily well-being of employees", *Group Dynamics: Theory, Research, and Practice*, Vol. 9 No. 1, pp. 58-67.
- McComas, K., Tuite, L.S., Waks, L. and Sherman, L.A. (2007), "Predicting satisfaction and outcome acceptance with advisory committee meetings: the role of procedural justice", *Journal of Applied Social Psychology*, Vol. 37 No. 5, pp. 905-927.
- MacKinnon, D.P., Cox, S. and Baraldi, A.N. (2012), "Guidelines for the investigation of mediating variables in business research", *Journal of Business and Psychology*, Vol. 27 No. 1, pp. 1-14.
- Maslach, C. (2001), "What have we learned about burnout and health?", *Psychology and Health*, Vol. 16 No. 5, pp. 607-611.
- Maslach, C. and Jackson, S.E. (1981), *The Maslach Burnout Inventory*, Consulting Psychologists Press, Palo Alto, CA.
- Meinecke, A.L. and Lehmann-Willenbrock, N. (2015), "Social dynamics at work: meetings as a gateway", in Allen, J.A., Lehmann-Willenbrock, N. and Rogelberg, S.G. (Eds), *The*



- Cambridge Handbook of Meeting Science*, Cambridge University Press, New York, NY, pp. 325-356.
- Newlund, D. (2012), "Make your meetings worth everyone's time", *USA Today*, available at: [www.usatoday.com/USCP/PNI/Business/2012-06-20-PNI0620biz-career-getting-aheadPNIBrd\\_ST\\_U.htm](http://www.usatoday.com/USCP/PNI/Business/2012-06-20-PNI0620biz-career-getting-aheadPNIBrd_ST_U.htm) (accessed 31 August 2015).
- Nixon, C.T. and Littlepage, G.E. (1992), "Impact of meeting procedures on meeting effectiveness", *Journal of Business and Psychology*, Vol. 6 No. 3, pp. 361-369.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.
- Preacher, K.J. and Hayes, A.F. (2008), "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models", *Behavior Research Methods*, Vol. 40 No. 3, pp. 879-891.
- Rogelberg, S.G., Allen, J.A., Shanock, L., Scott, C., Shuffler, M. (2010), "Employee satisfaction with meetings: a contemporary facet of job satisfaction", *Human Resource Management*, Vol. 49 No. 2, pp. 149-172.
- Rogelberg, S.G., Leach, D.J., Warr, P.B. and Burnfield, J.L. (2006), "'Not another meeting!': are meeting time demands related to employee well-being?", *Journal of Applied Psychology*, Vol. 91 No. 1, pp. 83-96.
- Schaufeli, W.B. and Bakker, A.B. (2003), "Test manual for the Utrecht work engagement scale", available at: [www.wilmarschaufeli.nl/publications/Schaufeli/Test%20Manuals/Test\\_manual\\_UWES\\_English.pdf](http://www.wilmarschaufeli.nl/publications/Schaufeli/Test%20Manuals/Test_manual_UWES_English.pdf) (accessed 31 August 2015).
- Schaufeli, W.B., Salanova, M., Gonzalez-Roma, V. and Bakker, A.B. (2002), "The measurement of engagement and burnout: a two sample confirmatory factor analytic approach", *Journal of Happiness Studies*, Vol. 3 No. 1, pp. 71-92.
- Schell, A. (2010), "Meeting-Kultur in Europäischen unternehmen: ad-hoc-umfrage unter mitarbeitern und führungskräften, die Regelmäßig an Business-meetings Teilnehmen", [European business meeting culture: an ad-hoc survey of employees and managers who regularly participate in business meetings], Schell Marketing Consulting, Munich.
- Schulte, E.M., Lehmann-Willenbrock, N. and Kauffeld, S. (2013), "Age, forgiveness, and meeting behavior: a multilevel study", *Journal of Managerial Psychology*, Vol. 28 Nos 7/8, pp. 928-949.
- Scott, C., Allen, J.A. and Rogelberg, S.G. (2015), "Five theoretical lenses for conceptualizing the role of meetings in organizational life", in Allen, J.A., Lehmann-Willenbrock, N. and Rogelberg, S.G. (Eds), *The Cambridge Handbook of Meeting Science*, Cambridge University Press, New York, NY, pp. 634-662.
- Seidler, A., Thinschmidt, M., Deckert, S., Then, F., Hegewald, J., Nieuwenhuijsen, K. and Riedel-Heller, S.G. (2014), "The role of psychosocial working conditions on burnout and its core component emotional exhaustion – a systematic review", *Journal of Occupational Medicine and Toxicology*, Vol. 9 No. 10, pp. 1-13.
- Shapiro, D.N., Chandler, J., Mueller, P.A. (2013), "Using mechanical Turk to study clinical populations", *Clinical Psychological Science*, Vol. 1 No. 2, pp. 213-220.
- Weick, K.E., Sutcliffe, K.M. and Obstfeld, D. (2005), "Organizing and the process of sensemaking", *Organization Science*, Vol. 16 No. 4, pp. 409-421.
- Wright, T.A. and Cropanzano, R. (1998), "Emotional exhaustion as a predictor of job performance and voluntary turnover", *Journal of Applied Psychology*, Vol. 83 No. 3, pp. 486-493.



Scale item	Factor loading
1. Meeting attendees engage in long monologues that do not move the discussion forward	0.58
2. Meeting attendees heavily criticize others in the meeting.	0.67
3. Meeting attendees heavily criticize others who are not present in the meeting.	0.76
4. Meeting attendees complain about things during the meeting.	0.69
5. Meeting attendees use random sayings or empty phrases.	0.61
6. Meeting attendees express little interest in trying out new ideas or procedures.	0.59
7. Meeting attendees look for a scapegoat.	0.80
8. Meeting attendees point out that other employees are to blame.	0.81
9. Meeting attendees shift responsibility to others.	0.83
10. Meeting attendees point out their work experience to show that they are superior.	0.69



**Figure A1.**  
Counterproductive  
meeting behaviors  
measure including  
factor loadings and  
scree plot

**About the authors**

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